

Maintenance #10

Name: _____

Date: _____ Period: _____

Unit 2... Linear Equations

Part 2.1 – Solving 1-Step Equations

26 Solve: $g + 7 = 28$

A) -21

B) -4

C) 4

D) 21

27 Solve: $\frac{2}{3}x = 18$

A) 6

B) 12

C) 27

D) 36

28 During the first half of a basketball game, a team scored 38 points. They made only field goals, which are 2 points each. Which of the following equations could you use to find the number of field goals g the team scored?

A) $2 + g = 38$

B) $2 - g = 38$

C) $\frac{g}{2} = 38$

D) $2g = 38$

29 4) Jessica has \$50.00 she wants to spend on CDs, which are on sale for \$13.50 each. Which equation could you use to find out how many CDs she can afford to buy?

A) $c - 13.5 = 50$

B) $c + 13.5 = 50$

C) $50c = 13.5$

D) $13.5c = 50$

30 5) A meteorologist forecast that the high temperature would reach 34°F one afternoon. The low temperature for the day was -4°F . Which equation could you use to find out how many degrees d the temperature would need to rise to reach the predicted temperature for the day?

A) $34 - 4 = d$

B) $-4 + d = 34$

C) $34 - d = 4$

D) $d - (-4) = 34$

31 6) Which of the following is an expression that represents "6 times the difference of a number n and 2"?

A) $6n - 2$

B) $6(n - 2)$

C) $6(n + 2)$

D) $6 \cdot 2 - n$

Part 2.2 – Solving Multi-Step Equations

32 7) Using the formula, $C = \frac{5}{9}(F - 32)$, solve for C if $F = 57^{\circ}$.

A) 12.7

B) 45

C) 13.8

D) 25

33
 _____ 8) Solve: $8n + 5 - 2n = 41$
 A) $3\frac{1}{2}$ B) $4\frac{1}{2}$ C) 6 D) $7\frac{2}{3}$

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 _____ 9) If a number is increased by 3 and that number is doubled, the result is -8. What was the original number?
 A) -7 B) -5.5 C) 1 D) 6

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 _____ 10) The gas tank in Roy's car holds 12 gal of gasoline. The car averages 29mi/gal. Roy filled up the tank and then drove 140 mi. About how many gallons of gasoline are left in the tank?
 A) 6 gal B) 7 gal C) 8 gal D) 9 gal

36
 _____ 11) Josie's goal is to run 40 miles each week. This week she has already run distances of 5.3 miles, 6.5 miles, and 6.2 miles. If she wants to spread out the remaining miles evenly over the next 4 days, which equation can you use to find how many miles (m) per day she must run?
 A) $5.3 + 6.5 + 6.2 + 40 = m$ B) $40 - 5.2 - 6.5 - 6.2 = m$
 C) $5.3 + 6.5 + 6.2 + 4m = 40$ D) $5.3 + 6.5 + 6.2 + m = \frac{40}{4}$

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 _____ 12) A cell phone company charges \$.35 for the first minute but only \$.10 every minute after that. Which equation can you use to find how many minutes m Eric talked if the bill for the call was \$5.45?
 A) $0.35 + 0.10(m-1) = 5.45$ B) $0.35 + 0.10m = 5.45$
 C) $0.10 + 0.35(m-1) = 5.45$ D) $0.10 + 0.35m = 5.45$

38
 _____ 13) Albert Einstein made \$1.70 per hour and received a \$10 bonus at the end of the week. If Mr. Einstein made a total of \$70 last week, which equation best represents the situation?
 A) $1.7 + 10h = 70$ B) $1.7 - 10h = 70$ C) $1.7h + 10 = 70$ D) $1.7h = 70 + 10$

39
 _____ 14) Solve: $9x - 4(3x - 2) = 4$
 A) $\frac{4}{3}$ B) $-\frac{4}{3}$ C) -4 D) 4

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 _____ 15) Solve: $18 - 4r = 6$
 A) -6 B) 3 C) 48 D) -96

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 _____ 16) Solve: $\frac{b}{5} - 7 = 18$
 A) -87 B) 83 C) 97 D) 125

42

17) The length of a rectangular garden is 4 feet more than the width. The amount of fencing needed to enclose the garden is 36 ft. What is the length of the garden?

- A) 7 ft B) 11 ft C) 17 ft D) 32 ft

Part 2.3 – Equations with Variables on Both Sides

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18) Solve: $14 - 2(q + 5) = -2q + 9$

- A) No Solution B) All Real Numbers C) 0 D) 9

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19) Solve: $2y = 3y - 20$

- A) -20 B) -4 C) 4 D) 20

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20) Which of the following equations is NOT equivalent to the others?

- A) $-2(y - 3) = -6y$ B) $-2y - 6 = -6y$
C) $y = -\frac{3}{2}$ D) $4y = -6$

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21) Ace Truck Rental charges \$54.00 a day plus 9 cents per mile. Joe's Truck Rental charges \$38.00 a day plus 13 cents per mile. For how many miles will the cost of renting a truck for one day at Ace equal the cost at Joe's?

- A) 40 mi B) 170 mi C) 400 mi D) 418 mi

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22) Which equation is NOT equivalent to $3p - 2 = 6p + 4$?

- A) $3p = 6p + 6$ B) $-6 = 3p$ C) $3p = 6$ D) $-3p - 2 = 4$

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23) A record store sells CDs for \$12.00 each. A music club offers 5 free CDs and charges \$15.00 for each additional CD. Which equation can you use to find the number of CDs, x , that would cost the same under both plans?

- A) $15x - 5 = 12x$ B) $12x - 5 = 15x$ C) $12x = 15(x - 5)$ D) $12(x - 5) = 15x$

49

24) Solve: $2(y - 3) = 1.2y$

- A) -1.6 B) 1.4 C) 1.6 D) None of these

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25) Solve: $8 + 4d = -4(-2 - d)$

- A) 0 B) 1 C) All Real Numbers D) No Solution